ULSS 001600-15

USER'S LOGISTIC SUPPORT SUMMARY

TACTICAL COMMAND SYSTEM (TCS)
AN/TYY-2

NSN 7022-01-477-7627

MARINE CORPS SYSTEMS COMMAND
QUANTICO, VA 22134-5010

AUGUST 2001
PCN 132 107260 00

DEPARTMENT OF THE NAVY
Headquarters, U.S. Marine Corps
Washington, DC 20380-0001

31 August 2001

1. This User's Logistics Support Summary (ULSS), authenticated for Marine Corps use and effective upon receipt, advises the Fleet Marine Force and other selected commands of the plan to field and logistically support the Tactical Command System (TCS) AN/TYY-2 (NSN: 7022-01-477-7627).

2. Submit notice of discrepancies or suggested changes to this ULSS to: Commander, MARCORSYSCOM, Attn: Program Manager (C4IAD), 2033 Barnett Ave, Suite 315, Quantico, Virginia 22134-5010. In addition, forward an information copy to Program Support (PSL) at the same address.

3. This ULSS replaces the Letter of Adoption and Procurement ULSS dated February 2000.

4. This ULSS is applicable to the Marine Corps Reserve.

BY DIRECTION OF THE COMMANDER MARINE CORPS SYSTEMS COMMAND

OFFICAL:

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DISTRIBUTION: PCN 132 107260 00

USER'S LOGISTICS SUPPORT SUMMARY FOR THE TACTICAL COMMAND SYSTEM

1. Introduction. The Tactical Command System, hereafter referred to as the Theater Battle Management Core Systems (TBMCS), is a Chairman Joint Chiefs of Staff mandated system among all Department of Defense services for the generation, dissemination and execution of the Air Tasking Order (ATO). The TBMCS software allows the Future Operations Section (FOS) of the Tactical Air Command Center (TACC) to effectively plan, generate, and disseminate the ATO, and allows the Current Operation Section of the TACC to monitor and execute the ATO. The TBMCS enhances the TACC's ability to manage Marine Corps tactical air operations and coordinate with components of other services. In conjunction with TBMCS fielding, there will be a scheduled technology refresh of the Contingency Theater Automated Planning System (CTAPS) equipment.

a. Source of Requirement. The statement of requirement for ATO interoperability is described in the TACC Operational Requirements Document, CCC 256.1, dated 24 March 1994.

b. Points of Contact

Title	Command	Telephone
Program Manager Air Defense Systems	COMMANDER MARCORSYSCOM (C4IAD) 2033 BARNETT AVE Suite 315 QUANTICO, VA 22134-5010	(703) 784-0707 DSN 278-0707 FAX (703) 784-0207
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Logistics Management Specialist	COMMANDER MCLB Albany GA 814 RADFORD BLVD SUITE 20343 ABLANY, GA 31704-0343	(229) 639-6568 DSN 567-6568 FAX (229) 639-6545
TBMCS Project Officer	COMMANDER MCTSSA (ADSD) CAMP PENDLETON, CA 92055	(760) 725-2575 DSN 365-2575 FAX (760) 725-9512
MAGTF C4I/HELP Hotline	MCTSSA (ADSD) CAMP PENDLETON, CA 92055	(760) 725-0533/0535 1-800-808-7634 DSN 365-0533/0535

c. System Description. The TBMCS host hardware suite consists of 27 Sun Ultra 60's, each with one Gigabyte (Gbyte) memory, floppy disk drive, Compact Disk-Read Only Memory (CD-ROM), Product Configuration Identification (PCI) card and flat panel monitor; 12 Raid Chassis; 15 two bay Chassis; five tape drives; and 63, 18 Gbyte hard drives. The remote hardware suite consists of a Sun Ultra 60 with one Gbyte memory floppy disk drive, CD-ROM drive, PCI card and flat panel monitor; a two drive bay case and cable; and an 18 Gbyte hard drive. The TBMCS is a United States Air Force (USAF) developed system architecture, designed to provide the organization, personnel, and equipment required to manage tactical air operations, to execute area air defense and airspace management in the tactical area of operation, and to coordinate operations with components of other military services. Specifically, TBMCS software provides an automated capability to receive, parse, display, store, and forward information required to generate and manage ATOs. The TBMCS contains computer workstations, servers, and peripherals configured into a complete system that is capable of scaling down to a single remote workstation for receiving, parsing, and printing the ATO received from the Joint Force Air Component Commander. As part of TBMCS, a Perimeter Security System (PSS), consisting of routers, virtual private network hardware, proxy server and Safenet Security Center, will also be provided. The PSS is used to increase TBMCS' resistance to network-based attack when it is attached to the Secret Internet Protocol Router Network (SIPRNet) or any other secure network. The PSS provides an envelope of security around TBMCS and other supporting systems by isolating the TBMCS sites on the secure network from non-TBMCS sites through a combination of security mechanisms that support one approved security policy. It enforces need to know access control and provides data encryption and or secure data transfers.

d. Operational Characteristics. The TBMCS contains a variety of Commercial Off-the-Shelf (COTS) workstations and servers that use the UNIX operating system. The system is scaleable and can be configured to support various mission needs.

(1) Command and Control Operations. The host suite includes six separate servers and 21 client workstations that together provide the Air Combat Element (ACE) Commander and his staff automated assistance in the following areas:

(a) Maintaining information on the tactical air situation and portions of the surface combat situation essential to the air effort.

(b) Assisting planners in allocation decisions, in the development of the ATO, and in the dissemination of that ATO to appropriate organizations and facilities.

(c) Assisting in the management of air assets, to include assignment and use of assets by subordinate air control or air defense agencies.

(d) Receiving, processing, maintaining, updating, and disseminating information on tactical aircraft and Marine Air-Ground Task Force (MAGTF) agencies.

(e) Receiving, processing, maintaining, updating and correlating intelligence information with other operational databases.

(f) Assisting in other planning functions

1 ATO generation

2 Electronic Warfare Planning

3 Site selection planning map survey

4 Aircrew briefs; storing of joint tactical air requests, assault support requests, and bomb damage assessments

5 Air defense planning; combat air patrol locations, surface-to-air missile unit locations, and tanker track operational engagement areas

6 Aviation logistics planning

7 Targeting and ordnance planning

(2) Operational Compatibility. The TBMCS provides the interface necessary to be compatible with standard network protocol and communications equipment organic to the Marine Wing Communications Squadron (MWCS). The TBMCS provides increased levels of inter-service compatibility and interoperability.

(3) Degraded Operations. The TBMCS capability to continue system operations in a degraded mode is based on the redundancy level inherent in the host suite and the Redundant Array of Independent Disks (RAID) capability provided for servers. This redundancy allows for reconfiguring the system should a particular workstation or server malfunction.

e. Replaced Weapon Systems and Equipment. The TBMCS will replace CTAPS, NSN: 5895-01-442-6930, TAMCN: A0012VIIG.

2. Administrative Information

a. Nomenclature. Theater Battle Management Core Systems (TBMCS)

b. Table of Authorized Material Control Number (TAMCN). A00137GP

c. Stores Account Code (SAC). 3

d. National Stock Number. 7022-01-477-7627

e. Item Designator. 10726A

f. Unit of Issue. Each

g. Unit Cost. $1,475,935.99 (Note: The unit cost is based on the unit price of each item listed in table 1 multiplied by the baseline quantities.)

h. Support Cost. $151,811.00

i. Physical Characteristics

(1) Physical Configuration. Each TBMCS is comprised of a specified quantity of workstations and peripheral equipment separated into a host suite and a remote suite. The TBMCS configuration is shown in Figure 1.

(a) Host Suite. The host suite includes six servers and 21 client workstations that provide the ACE staff the capability to generate, disseminate and execute the ATO. The host suite also includes a number of peripherals such as laser printers, tape drives, external hard drives, and other associated equipment. Table 1 provides a complete list of host suite equipment.

(b) Remote Suite. The remote suite is comprised of a workstation, printer, and router. The remote suite allows the units that are detached from the host suite the capability to receive, parse, print, and dynamically execute the ATO. Remote suite equipment is listed in Table 2. The difference in quantities among the Marine Aircraft Wings (MAWs) is due to geographical dispersion and differences in number of squadrons and groups to be supported. Commander, Marine Forces Pacific (MARFORPAC) will receive three TBMCS workstations separately from the four MAWs. Table 3 reflects remote suite workstation distribution.

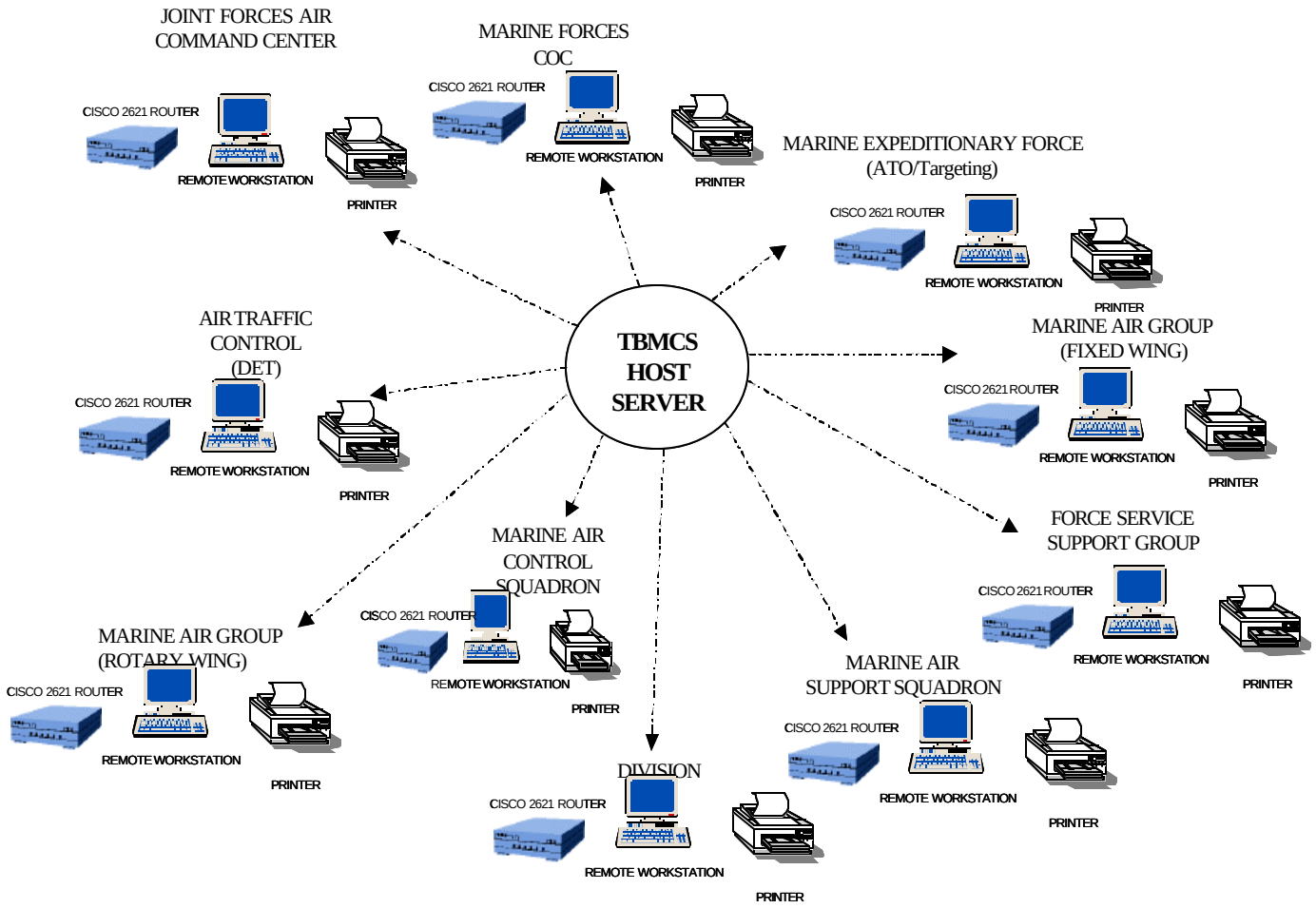

Figure 1 Host and Remote Suite Configuration

Table 1. TBMCS Equipment List – Host Suite

ITEM	MANUFACTURER	NSN/PART NUMBER	QTY REQ
ULTRA 60 with 1 Gbyte RAM, Floppy Drive, CD ROM, and PCI Card	Sun Microsystems	A23-UDL2-9L-512AQ	27
18" TFT LCD Flat Panel Monitor	Sun Microsystems	X7127A	27
Country Kit for US Type 6	Sun Microsystems	X3515A	27
Smartstore 7X RAID Desktop Chassis with removable 110V power supply and cable	Z -Micro Systems	B0731-DSY	12
Two Drive Bay Chassis	Z- Micro Systems	S3-ZM-B0200SY	15
12GB 4mm DDS-3 in a Unipack desktop enclosure (external 4mm tape drive)	Sun Microsystems	SG-XTAP4mm-011A	5
Z-Micro Systems Smart Pak 18.2 GB, 7200 RPM	Z-Micro Systems	SP1-MD18S-KS	45
Laser Printer w/o Optional Ethernet CCA	Hewlett Packard	C4253A#ABA	5
Uninterruptible Power Supply	American Power Corporation	SU1400NET	27
CISCO 3662 Router with Dual Power Supply, 16MB RP PCMCIA Flash Silicone Switch Processor	Cisco Systems		1
CISCO 3640 Router	Cisco Systems		4
Proxy Server, w/Monitor	Micron	Micron Net Frame 3400	1
PPD Server, wMonitor	Dell	Dell PowerEdge 1300	1
IRE Safenet Speedbox	IRE		34 - 1st & 4th 46 - 2nd & 3rd
CISCO SWITCH, 2924	CISCO	WS-C2924M-XL-EN	14
CISCO SWITCH, 2922	CISCO	WS-X2922-XL-V	12
CISCO SWITCH, 2912	CISCO	WS-C2912-XL-EN	10
Hardigg Cases for UPS's	Hardigg	16099-1000	27
Hardigg Case for Workstation Kit: CPU, Monitor, Keyboard, Drive Bay, Cables and Accessories	Hardigg	16099-100	27

Table 1. TBMCS Equipment List – Host Suite (Cont'd)

ITEM	MANUFACTURER	NSN/PART NUMBER	QTY REQ
Hardigg Case for External Tape Drives	Hardigg	16099-300	1
Hardigg Case for Hard drives	Hardigg	16099-400	4 1st & 4th 5 2nd & 3rd
Hardigg Case for RAID Bays	Hardigg	16099-200	4
Hardigg Case for CISCO 3662 Router	Hardigg	16099-500	1
Hardigg Case for CISCO 3640 Routers	Hardigg	16099-600	1
Hardigg Case for CISCO 2924 Switches	Hardigg	16099-800	3
Hardigg Case for CISCO 2912 Switches	Hardigg	16099-900	2
Hardigg Case for Laser Jet 4M Printer	Engineered Packaging		5

Table 2. TBMCS Equipment List – Remote Suite

ITEM	MANUFACTURER	NSN/PART NUMBER	QTY REQ.
Ultra 60 with 1 Gbyte RAM, Floppy Drive, CD ROM and PCI Card	Sun Micro Systems	A23-UDL2-9L-512AQ	1
18" TFT LCD Flat Panel Monitor	Sun Micro Systems	X7127A	1
Z Micro Systems 2 Drive Bay Case with 3 foot cable	Z Micro Systems	S3-ZM-B0200SY	1
Z Micro Systems Smart pack 18.2\GB 7200RPM	Z Micro Systems	SP1-MD18S-KS	2
Laser Printer	Hewlett Packard	C4253A#ABA	1
Uninterruptible Power Supply	American Power Corporation	SU1400NET	1
CISCO 2621 Router with 16MB DRAM Memory	CISCO Systems	CISCO 2621	1
Hardigg Case for Remote Workstation Kit: CPU, Monitor, Keyboard, Drive Bay, Cables and Accessories	Hardigg	16099-100	1
Hardigg Case for UPS	Hardigg	16099-1000	1

Table 2. TBMCS Equipment List – Remote Suite (Cont'd)

ITEM	MANUFACTURER	NSN/PART NUMBER	QTY REQ.
Hardigg Case for Printer	Hardigg		1
Hardigg Case for CISCO 2621 Router	Hardigg	16099-700	

j. Petroleum, Oil, and Lubricants (POL). N/A

k. Equipment Density. Low Density

l. Resource Reporting. Yes

m. Power Requirements. The AC electrical service is supplied by the power distribution systems organic to the Modular Extendable Rigid Wall Shelter (MERWS) complex. The MERWS complex receives power primarily from Mobile Electronic Power generators organic to the Marine Tactical Air Command Squadron (MTACS). The Shelter Suite operates from a 120/208 volt AC, 60 Hz, 3-phase power source. Each workstation is connected to it's own uninterruptible power supply (UPS).

Table 3. Operational Employment of TBMCS Remote Suite Workstations

UNIT	1ST MAW	2ND MAW	3RD MAW	4TH MAW
MARINE AIR GROUP (FIXED WING)	1	2	2	2
MARINE AIR GROUP (ROTARY WING)	1	2	2	2
MARINE AIR CONTROL SQUADRON	1	2	2	2
MARINE AIR SUPPORT SQUADRON	1	1	1	1
JOINT FORCES AIR COMMAND CENTER	1	1	1	1
AIR TRAFFIC CONTROL (DET)	2	4	4	4
MARINE EXPEDITIONARY FORCE	5	6	6	-
DIVISION	2	2	2	2
FORCE SERVICE SUPPORT GROUP	2	2	2	2
SUBTOTAL:	16	22	22	16

n. Associated Weapons Systems and Equipment. Shelter Suite (S-786/G), consisting of Tactical Expandable Two-Sided, Complexing Kit Passageway, and MERWS.

3. Fielding Methodology

a. General Fielding Plan. The TBMCS will be fielded vertically to each active and reserve unit according to the schedule in appendix A.

b. Method of Fielding. The TBMCS will be force fed directly from the vendor to the gaining commands beginning 1st QTR FY01. The USAF Fielding Teams will field Marine Corps Communication-Electronic School (MCCES), and the four MAWs. Marine Corps Tactical Systems

Support Activity (MCTSSA) personnel will field to Marine Aviation Weapons and Tactics Squadron 1 (MAWTS-1), MAGTF Staff Training Program (MSTP), MCTSSA and MARFORPAC.

c. Fielding Responsibilities. Units are responsible for conducting a limited technical inspection of technology refresh equipment received, and removing the internal hard drive from each Sun Ultra 60 prior to the arrival of the AF fielding team.

(1) Gaining Commands

(a) Gaining Commands will establish a single point of contact (POC) with the authority to resolve any problems that are encountered during the fielding process. The POC shall be on hand and authorized to sign and report receipt for the unit.

(b) Gaining Commands will provide personnel, facilities, material handling equipment, and administrative support to the Material Fielding Team (MFT) during the equipment hand-off and training.

1 Gaining Commands will provide a secure space large enough to unpack, inventory, inspect, perform operational checks, and store items.

2 Gaining Commands will provide a classroom for training.

(c) Gaining Commands will establish and maintain security safeguards in accordance with DoD Directive 5200.28, Security Requirements for Automated Information Systems, dated 21 March 1988. Refer to Appendix "X" of TBMCS Security Policy, Version 1.0.1, dated 12 May 2000.

(2) Marine Corps Systems Command (MARCORSYSCOM)

(a) MARCORSYSCOM will provide the MFT to conduct training and provide guidance required for introducing the AN/TYY-2 to the Marine Forces.

(b) MARCORSYSCOM will coordinate with the gaining commands regarding the time, facilities, and personnel required for completing the fielding effort.

(3) Commander Marine Corps Logistics Bases (COMMARCORLOGBASES), Albany, GA

(a) COMMARCORLOGBASES will assign participant(s) to the MFT and provide information regarding security clearances to MARCORSYSCOM 45 days prior to fielding events.

(b) If needed, COMMARCORLOGBASES will address the requirement to provide temporary storage of items being fielded.

4. Logistics Support

a. Maintenance Support. The TBMCS utilizes COTS hardware that will rely, to a great extent, on commercial support practices for maintenance, modification, revision of hardware, and supply

support. Providing effective and efficient maintenance of Command, Control, Communications, Computer, & Intelligence (C4I) systems is the responsibility of the Marine Corps Logistics Support Manager (LSM). This support is provided through Single Service Logistics Support Manager (SSLSM) contracts. The LSM, MARCORLOGBASES, Albany, has appointed a Senior Government Service Representative/Funding Manager (GSR/FM) to manage contractor maintenance under SSLSM contracts. The Senior GSR/FM has determined that contract support for TBMCS equipment will be accomplished under the Intelligence, Information, Processing and Production (I2P2) contract, under the SSLSM, for the life cycle of the TBMCS. To facilitate this support, the Marine Expeditionary Force (MEF) assigns local GSRs to manage the operation and maintenance of the systems which I2P2 supports. Contractor field services representatives located at each of the MEFs, working under the I2P2 contract, are known as Field Service Technicians (FSTs) and Field Service Assistants (FSAs). The FSTs perform maintenance services, and the FSAs provide logistics support within the MEF geographical area, under the overall direction of the local GSR.

(1) Maintenance Concept. Maintenance support will be provided by the FSTs as well as qualified organic maintainers Military Occupational Specialty (MOS) 5962 and 5974. Maintenance will be accomplished at two levels: organizational (O-level) and depot level (D-level). The requirement for test and support equipment to perform maintenance tasks has been minimized because of the emphasis on COTS equipment for TBMCS. O-level maintainers will employ equipment self-testing and logical troubleshooting techniques to isolate, locate and replace defective components at the lowest Line Replaceable Unit (LRU) level (e.g. printer or keyboard). In garrison, the defective LRU will be returned for warranty repair (if applicable). The LRU will be repaired or replaced (replacement must meet form, fit and function) by the FST. While deployed, defective LRUs will be exchanged for operational items from a government owned spares package.

(a) Organizational Level Maintenance. The using unit is responsible for accomplishing O-level (first and second echelon) maintenance as well as system administration.

1 Operator Responsibilities. The TBMCS operators are responsible for maintaining a clean, complete, and fully operational system. Procedures for accomplishing this are described in commercial documentation accompanying the equipment. In the event of a hardware malfunction, operator troubleshooting consists of ensuring the TBMCS components are properly connected, power cables are plugged into the correct operable power source outlets, and power switches on components are set to the "ON" position. If the malfunction persists, the condition should be reported to the unit's organic O-level maintenance personnel. Operator's responsibilities include the following:

- Inspect computer and other components prior to installation
- Monitor results of equipment power-on self-tests
- Verify proper operation of the system
- Clean chassis exterior, including connectors
- Clean keyboard assembly
- Check screws and fasteners for tightness

- Clean screen surfaces
- Clean exterior of peripherals, connectors and cables
- Inspect accessories
- Reboot the computer

2 O-level Maintainer Responsibilities. Unit level organic maintainers (MOS 5962 and MOS 5974) will perform a preliminary evaluation of TBMCS hardware malfunctions reported by operator or system administration personnel. Component or system software diagnostics will be executed to isolate to the LRU. If a problem persists, the GSR will be contacted, who will then contact an FST to provide further troubleshooting assistance. Defective LRUs will be removed and replaced with a functioning component either by the FST or by organic maintainers at the direction of the FST. O-level maintenance tasks include:

- Verify serviceability of cables
- Fault isolate to defective LRU
- Removal and replacement of defective items
- Configure workstations per customer requests
- Evacuate defective items to higher echelon
- Perform quality control procedures on items returned from higher echelon

Note: Authority to open TBMCS component cases to perform repair actions is subject to the provisions of the appropriate equipment warranty, as well as the availability of an Electrostatic Discharge (ESD) safe workstation. Failure to properly use ESD safe procedures may result in immediate or delayed catastrophic failures or degraded performance detectable only during special or peak equipment operations.

(b) D-Level Maintenance. The TBMCS equipment manufactures or vendors will perform depot level maintenance on items under their cognizance that fail and are beyond repair at the organizational level. While the TBMCS equipment items are still under warranty, repair actions will be accomplished under the provisions of the applicable warranty. Equipment items that fail due to circumstances not covered by applicable warranty, or which are beyond the warranty period, must be repaired or replaced, as required, at the expense of the government.

(2) Designated Support Depot. MARCORSYSCOM Albany (Code C4ISR AD), will oversee contractor repair services at both the Intermediate and Depot Levels, by managing and monitoring the Contractor Logistics Support (CLS) contract.

(3) Calibration Requirements. None required.

b. Contractor Support Requirements

(1) FST. The FST is the contractor's employee assigned to a central site and is available to perform maintenance services and provide logistics support for the TBMCS. The arrangement for support from the FST may be "on-site", meaning the site is the regular place of work for the FST; or

per-call, meaning the FST visits the site on an as-needed basis when called to do so. Below is a list of the responsibilities of the FST (this is not all inclusive):

- Deploys with a system (24 hours notification within the Continental United States (CONUS); 48 hours Outside CONUS
- Provides on-site remote maintenance for problems with hardware immediately during the Principal Period of Maintenance (PPM) and within two hours, if required, outside the PPM
- Provides per-call remote maintenance in accordance with the terms of the delivery order
- Conducts preventive maintenance on a schedule determined by the original equipment manufacturer's suggested frequency, and site's operational requirements
- Installs, removes, (un-installs) or relocates equipment
- Complies with all security requirements
- Contacts the Regional Manager for backup support as required
- The FST will possess a security clearance at the highest level of classification required by the site being supported

(2) FSA. The FSA is the contractor's employee assigned to a central site and primarily provides logistics and administrative support to the FST. Below is a list of the responsibilities of the FSA (this list is not all inclusive):

- Assists the GSR with Warranty Coordination.
- Maintains and updates the site hardware inventory database to include updating the database each time an approved modification, change or revision is incorporated into the system or component.
- Manages government owed spares held by the contractor.
- Ensures that site equipment has bar code labels attached.
- Organizes, files and maintains all government and contractor documentation for the GSR.
- Prepares and submits all contractor generated documentation to the Senior GSR/FM on a monthly basis.

(3) Interim Contractor Support (ICS). The Air Force will provide ICS for major exercises identified by MARCORSYSCOM during FY01. Exercise support will be in the form of Air Force "Blue Suit" or civilian contractors, and will be for the purposes of assisting Marines (system administrators and operators) with gaining experience in the operation and maintenance of TBMCS.

(4) CLS. Contract support is used for the life cycle of TBMCS. The contractor's FST will perform all levels of maintenance required as stated in the Contractor Support Requirements in paragraph 4b above.

c. Manpower, Personnel, and Training

(1) Personnel Requirements. The AN/TYQ-1(V), TACC Military Manpower/Hardware Integration Program analysis of July 1995, concluded that fielding of the TACC did not create additional personnel requirements to the tables of organization 8620/8620A (MTACS), 7442

(MCTSSA), or 7720 (MCCES). However, due to complexity of equipment integration and operating environment, a systems administrator position is required. Accordingly, maintainers (MOS 5974) assigned to the TACC will fulfill the system administration functions. The current support structure for the TACC system contains sufficient personnel to set up, tear down, and maintain the equipment. Personnel from CTAPS will transition to TBMCS with no additional requirement.

(2) Training Requirements. The introduction of TBMCS requires training of all personnel for its operation and maintenance, including current TACC operations and maintenance personnel. The TBMCS related MOS's are identified in Table 4. The TBMCS application peculiar training is conducted in two principal academic environments; the joint courses given at the C2 Warrior School (C2WS), Hurlburt Field, FL and the Marine Corps course conducted at MCCES, Twenty-nine Palms, CA.

Table 4. MOS's Related to TBMCS Training

MOS	TITLE	SKILL DESIGNATOR
7204	Surface-to-Air Weapons Officer	Surface-to-Air Weapons Officer
7208	Air Support Control Officer	Air Support Control Officer
7210	Air Defense Control Officer	Air Defense Control Officer
7220	Air Traffic Control Officer	Air Traffic Control Officer
7234	Air Command and Control Electronics Operator	Air Command and Control Electronics Operator
7236	Tactical Air Defense Controller	Tactical Air Defense Controller
7242	Air Support Operations Operator	Air Support Operations Operator
4066	Small Computer Systems Specialist	Small Computer Systems Specialist
5962	Tactical Data System Repairer	Tactical Data Systems Equipment Repairer
5974	Tactical Data System Technician	Tactical Data Systems Administrator
75XX	Air Crew	Pilot or Naval Flight Officer

(a) TBMCS Training. Personnel with MOS 5962, assumes responsibility for the maintenance of TBMCS and limited system administration functions. Personnel with MOS 5974, assumes responsibility for overall system administration. The TBMCS training is currently conducted at the C2WS, Hurlburt Field, FL. Quotas for TBMCS at the C2WS are allocated to all services. The duration of the course is five weeks and conducted six times each year. Curriculum from the C2WS System Administration course has been incorporated by MCCES into instruction for MOSs 5962 and 5974. Formal courses are conducted by MCCES, twice a year. Curriculum from the C2WS computer applications course has been incorporated by MCCES into instructions for MOSs 7202, 7208, 7210, 7234, 7236 and 7242 for instruction in TBMCS remote operations.

1 Instruction for MOS 5962 covers Marine Corps Common Hardware Suite maintenance philosophy, corrective maintenance to the LRU, and basic UNIX networking and operating systems. Periods of instruction do not exceed 210 hours.

2 Instruction for MOS 5974 covers advanced networking and UNIX concepts, manipulation of databases, and TBMCS system administration and operations. Periods of instruction do not exceed 218 hours.

3 Instruction for MOSs 7208, 7210, 7234, 7236, 7202, and 7242 focuses on TBMCS remote operations. This course is still under development and will not exceed 40 hours.

(b) PSS. Lockheed Martin Missions Systems will provide initial PSS training to MWCS personnel. The TBMCS PSS ICS Site Activation Support, MTTs will be provided at each MAW.

(3) Training Support Items. A full TBMCS host system will be delivered to MCCES. This system is dedicated to maintainer training and familiarization training for the Air Support and Air Defense Officers courses. No special support is required for the MCCES system.

d. Supply Support. Marine Corps Logistics Bases (MARCORLOGBASES), Albany, will provide supply support for the TBMCS system using the SSLSM I2P2 contract. Two sets of deployment spare packages to be used to support contingency operations will be maintained by MARCORLOGBASES, Albany, GA. Due to TBMCS versatility, scalable to support varying mission scenarios, the makeup of each package may vary in content and quantity of items. MARCORLOGBASES, Albany, in conjunction with the contractor, will determine the range and depth of spares. Individual unit spares will not be procured. Parts will be repaired/replaced via the three-year warranty, and administered by the FSA.

e. Support Equipment

(1) Special Tools. None Required.

(2) Common Tools. Common tools necessary to support TBMCS are a set of screwdrivers included in the Tool Kit, Electronic Maintenance, M-2569/P, TAMCN: A79002E, NSN: 5180-01-244-1290, which is organic to each using unit's Table of Equipment (T/E).

(3) Special Purpose Special Purpose Test Equipment. None Required.

(4) General Purpose Test Equipment. Table 5 list the General Purpose Test Equipment.

Table 5. General Purpose test Equipment

NOMENCLATURE	NSN	TAMCN
Multimeter, Digital, Handheld, Fluke Model 77/BN	6625-01-336-3372	H7030
Computer Test Kit, TS-4516/U	7025-01-443-3383	H7924

(5) Application Program Sets and Test Program Sets. None Required.

(6) Other Support Equipment. None Required.

f. Technical Publications. There are no separate technical publications used with TBMCS. All Software Users Manuals (SUMs) are built into the software and are accessed through the HELP Menu. The Load SUM is delivered in hardcopy form.

g. Computer Resources Support. The USAF provides TBMCS Post Deployment Software Support (PDSS). MCTSSA (AC09) provides oversight and management of PDSS and has primary responsibility and authority for Marine Corps TBMCS software configuration issues. Field units report software related problems to MCTSSA. After appropriate validation MCTSSA reports software problems to MARCORSYSCOM for correction in future releases of TBMCS software. The TBMCS software corrections are controlled and accomplished through the TBMCS Requirements Planning Team.

h. Facilities. No new facilities will be required to accommodate or support TBMCS.

(1) Existing Facilities. TBMCS will utilize the same facilities used for CTAPS.

(2) New Facilities. N/A

(3) Interim Facilities. N/A

i. Packaging, Handling, Storage, and Transportation

(1) Packaging

(a) From the Manufacture. The TBMCS is preserved and packaged within high impact, plastic transit cases. These cases are normally transported within the S-786/G shelters of the TACC. Equipment scheduled for shipment to using units for immediate use shall be preserved and packaged in accordance with the best commercial practices of ASTM D 3951-98. Items scheduled for shipment to overseas destinations will be packaged in accordance with ASTM D 3951-89, paragraph 6.1, Export Shipments. Items scheduled for long term storage shall be preserved and packaged in accordance with the Level A requirements of Military Standard (MIL-STD)-207-1D, Department of Defense (DoD) Standard Practice for Military Packaging, Appendix A, Table A. VI, Electronic Equipment. Transit containers, shall be maintained by the using units for use in storage, to prevent equipment failure or return to stock. Marking for shipment shall be in accordance with MIL-STD-129, DoD Standard Practice for Military Marking.

(b) From the Using Unit. In the event of a required return to stock, the using unit shall be responsible for the preservation and packaging of the item within the transit cases in accordance with current Level A policy and procedures (i.e. MILSTD-2073-1D, DoD Standard Practice for Military Packaging and Marine Corps Order (MCO) 4030.36, Marine Corps Packing Manual). A return for repair will be to Level B requirements. Should a repair/spare part, that is determined to be electrostatic sensitive, be required for repair or return to stock, it shall be preserved and packaged in accordance with the Level A requirement of MIL-STD-2073-1D, Appendix J, Table J.Ia, Specialized preservation code "GX". All items subject to electrostatic discharge shall be packed into a reusable fast-pack container. Marking for shipment shall be in accordance with MIL-STD-129, DoD Standard Practice for Military Marking.

(2) Handling. The TMBCS is not ruggedized and must be handled accordingly. All components are stored within the transit cases and are one or two person transportable. Should the TBMCS contain classified information it shall be handled in accordance with the appropriate policy

and procedures of the Communications Security Material System Policy and Procedures Manual (CMS-1A).

(3) Storage. For long-term storage or shipment overseas, other than air, TBMCS shall be preserved and packaged in accordance with MIL-STD-2073-1D, Appendix A, Table A. VI, Electronic Equipment. The TBMCS shall be in operational condition prior to storage. Marking for shipment shall be in accordance with MIL-STD-129. The TBMCS shall be stored in a covered structure, providing protection from the elements and meeting special humidity criteria (-40 C (-40 F) to +71 C (± 160F)). If the item for storage contains information deemed as classified, then the requirements of the Communications Security Material System Policy and Procedures Manual (CMS-1A) policy and procedures shall be invoked. Batteries shall be removed prior to storage. At the using unit, storage will normally be within the S-786/G shelter.

(4) Transportation. The TBMCS and its components, because of their modular configuration, are transportable by all means available to the Marine Corps (i.e. air, ground (truck), and water) exercising all safeguards for Automatic Data Processing equipment. The DoD 4500.9R, Defense Transportation Regulation, Part II, Cargo Movement shall govern movement of the material. The transportation of classified information or equipment will be in accordance with the procedures contained in OPNAVINST 5510 series and the Communications Security Material System Policy and Procedures Manual (CMS-1A).

j. Transportability and Naval Integration. None Required.

k. Warranties. The contractor is responsible for recording, reporting, and replenishing all spare and repair parts that are under warranty and are consumed in the performance of system maintenance. Replenishment of items under warranty is on a non-reimbursable basis. As part of Technical Refresh of hardware, there is a three-year warranty, which covers parts of all hardware. The CLS contractor will administer this warranty.

l. Environmental, Safety, And Health. None Required.

m. Waivers and Plan of Action and Milestones. There are no waivers or plans of action on any integrated logistics support element or related function for fielding.

5. Actions Required to Place Equipment in Service

a. Gaining Commands

(1) Fielding Requirements. Using units will perform an acceptance inspection upon receipt of their respective TBMCS assets and will notify COMMARCORSYSCOM and COMMARCORLOGBASES when TBMCS will be placed in service.

(2) Material Defects Reporting. Submit all fit, form, or function deficiencies in accordance with standard Product Quality Deficiency Reporting procedures contained in TM 4700-15/1 and MCO 4855.10 to Life Cycle Management Center, ATTN: Product Support Section (Code 822-2), 814 Radford Blvd., STE 20320, Albany, GA 31704-0320.

(3) Retrograde of Existing Systems and Equipment. The CTAPS' equipment will be phased out IAW the Phase out Plan.

(4) Obtaining Supporting Consumables. Upon acceptance, the gaining unit assumes budgeting and requisitioning responsibilities for consumables required to support TBMCS.

(5) Controlled Item Reporting. The TBMCS is classified as a controlled item. Accordingly, controlled item reporting for this system is being accomplished in accordance with current directives.

(6) Marine Corps Ground Equipment Resource Reporting (MCGERR). This item will be a candidate for MCGERR once 85% fielded and nominated IAW Marine Corps Bulletin 3000.

(7) Security Requirements. Security requirements are detailed in the TBMCS Security Classification Guide provided during fielding.

b. COMMARCORLOGBASES, Albany. In addition to normal responsibilities and functions relative to fielding a new system, MARCORLOGBASES Albany shall accomplish the following tasks:

(1) Establish and implement CLS procedures for TBMCS. The CLS contract shall provide on-call, worldwide logistics support, including depot level repair for COTS equipment.

(2) Develop and implement disposition instructions for all systems and equipment replaced as a result of fielding TBMCS.

(3) Develop and implement the CTAPS Phase out Plan.

(4) Monitor the CLS contract, to insure the contractor is in compliance with all requirements of the contract.

c. MARCORSYSCOM

(1) Direct and provide oversight during loading of equipment listed in table 1, into the unit T/E.

(2) Direct and provide oversight during conversion of TBMCS planned allowances to actual allowances on applicable T/E's.

(3) Procure and field Technology Refresh Hardware.

(4) Oversee USAF MTT's at each unit.

d. Designated Software Support Activity. Oversight and management of PDSS; will be provided by MCTSSA (AC09), with MCTSSA also having primary responsibility and authority for Marine

Corps TBMCS software configuration issues; provide technical software support to its users; and perform as the POC to the Lockheed Martin Mission Systems Tier II HELP DESK. The USAF Contractor installation teams will install TBMCS hardware at the MAWs and MCCES. MCTSSA will perform subsequent installations at MARFORPAC, MAWTS-1, MSTP, and MCTSSA itself.

Appendix A:

List of Allowances and Delivery Schedules

T/E NO:	UNIT TITLE:	ALLOWANCES:	PLANNED FY 01 BY QUARTER 1	2	3	4
N8615	MTACS - 38, 3RD MAW	1	1			
7720	MCCES*	1	1			
N8615	MTACS - 28, 2ND MAW	1	1			
N8615	MTACS - 18, 1ST MAW	1		1		
7442	MCTSSA *	1		1		
N8615	MTACS - 48, 4TH MAW	1		1		
	NSWC, Crane*	1	1			
M8573	MAWTS-1	1			1	
	MSTP	1		1		
M4928	MARFORPAC**	1		1		

* MCCES, MCTSSA and Crane will receive a scaled-down version for training purposes, PDSS and engineering respectively.

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** MARFORPAC will receive 3 remote terminals from 1st MAW.

NOTE: Both the TBMCS Host and Remotes Units will be issued to the MTACS. Each MTACS will control and issue Remote Units as needed, same as they did the CTAPS Remotes.

NOTE: The information provided above is accurate as of the date of publication of this ULSS. Subsequent changes to unit allowances or deliveries are reflected through modification of quantities in the EAF.

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Appendix B: Schedule of Events

EVENT:	FY 01 BY QTR 1	2	3	4
Fielding Decision	X			
IOC	X			
FOC				X

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Appendix C: ACRONYMS

ACE	Air Combat Element
ATO	Air Tasking Order
C2WS	Command and Control Warrior School
C4I	Command, Control, Communications, Computers, and Intelligence
CD-ROM	Compact Disk-Read Only Memory
CLS	Contract Logistics Support
COMMARCORLOGBASES	Commander Marine Corps Logistics Bases
CONUS	Continental United States
COTS	Commercial Off-the-Shelf
CPU	Computer Processing Unit
CTAPS	Contingency Theater Automated Planning System
D-LEVEL	Depot Level Maintenance
DoD	Department of Defense
ESD	Electro Static Discharge
FM	Funding Manager
FSA	Field Services Assistant
FST	Field Services Technician
CD-ROM	Compact Disk-Read Only Memory
Gbyte	Gigabyte (approximately 1,000,000,000 bytes)
GSR	Government Service Representative
I2P2	Intelligence, Information, Processing and Production
ICS	Interim Contractor Support
LSM	Logistics Support Manager
LRU	Line Replaceable Unit
MAGTF	Marine Air-Ground Task Force
MARCORLOGBASE	Marine Corps Logistics Base
MARCORSYSCOM	Marine Corps Systems Command
MARFORPAC	Marine Forces Pacific
MAW	Marine Aircraft Wing
MAWTS-1	Marine Aviation Weapons and Tactics Squadron One
MCCES	Marine Corps Communication-Electronics School
MCGERR	Marine Corps Ground Equipment Resources Reporting
MCO	Marine Corps Order
MCTSSA	Marine Corps Tactical Systems Support Activity
MEF	Marine Expeditionary Force

MERWS	Modular Extendable Rigid Wall Shelter
MFT	Material Fielding Team
MIL-STD	Military Standard
MOS	Military Occupational Specialty
MWCS	Marine Wing Communications Squadron
MSTP	MAGTF Staff Training Program
MTACS	Marine Tactical Air Command Squadron
MTTS	Mobile Training Team
O-LEVEL	Organizational Level Maintenance
PCI	Product Configuration Identification
PDSS	Post Deployment Software Support
PPM	Principal Period of Maintenance
POC	Point of Contact
PSS	Perimeter Security System
RAID	Redundant Array of Independent Disks
SSLSM	Single Service Logistics Support Network
SUM	Software Users Manual
T/E	Table of Equipment
TACC	Tactical Air Command Center
TBMCS	Theater Battle Management Core System
ULSS	User's Logistic Support Summary
USAF	United States Air Force